Behavioral Risk Factor Surveillance System

Appendix 1: Application for Proposal for the 2016 BRFSS Questionnaire

Please complete this application as carefully and thoroughly as possible. Incomplete proposals will be returned without review.

SECTION A: TYPE OF APPLICATION

Is this a(n): ☒ **MODIFICATION** ☐ **ADDITION** ☐ **CONTINUATION (no changes)**
☐ **NEW PLAN FOR EXISTING CORE OR MODULAR QUESTIONS**
☐ **PROGRAM WILL HAVE NO QUESTIONS FOR 2016**

SECTION B: SECTION OF QUESTIONNAIRE

This is for a(n): ☐ **OPTIONAL MODULE** {skip to Section C}
☐ **EMERGING CORE**[1] ☒ **CORE**[2]

If this is an application for Emerging Core or Core, are you interested in including as an Optional Module if question(s) do not pass state coordinator vote?

☒ Yes
☐ No

SECTION C: PROGRAM INFORMATION

Program Name: US Army Public Health Command

Program Contact Person: Ms. Karen Deaver

Email: karen.d.deaver2.civ@mail.mil **Telephone:** 410-436-7425/4311

SECTION D: SOURCE

1. **What is the source of the question(s)?**

☐ We developed the question(s) **{skip to Q4}**
☒ The question(s) is/are from an existing instrument or adapted from an existing instrument

SECTION E: PERFORMANCE

If not developed by your program then answer Q2-3; otherwise, skip to Q4

2. **Please provide the name of the original instrument or source for each question:**

Military and veteran's status questions have been asked in the 2000, 2003-2013 BRFSS. Proposed Question 1 comes from previous BFRSS surveys 2003-2008. Proposed Question 2 comes from the National Financial Capability Study, 2009 Military Survey Questionnaire.

3. **Did you modify the question(s) from the original instrument?**

☒ Yes
☐ No

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[1] Please note that the number of emerging core questions is limited to 4. Proposals with more than 4 questions will not be considered for emerging core.
[2] Additions to the BRFSS Standard Core Questionnaire are limited and will be prioritized.

4. **Have these questions been part of a human subjects review determination and if so, what is the protocol #.**

☐ **State level**

If checked, provide Protocol #

☐ **HHS level**

If checked, provide Protocol #

Questions 5 and 6 ask for evidence of validation and reliability testing. Please click on the links for more information regarding these concepts or go to this Link for a summary of both.

5. **Have the question(s) undergone validation testing?**

☒ Yes
☐ No
☐ Yes – but not completed

If yes, please provide evidence of the extent of validity testing by providing the following information for each study conducted:

Study title:

Per our conversation with Dr. Carol Crawford and Dr. Machell Town on the 3rd of September, questions used on previous questionnaires are considered validated.

Brief description of methods:

Results, including relevant statistics:

Citation (if applicable):

6. **Has the reliability of questions been tested?**

   ☒ Yes
   ☐ No
   ☐ Yes – but not completed

   If yes, please provide evidence of the extent of reliability testing by providing the following information for each study conducted:

Study title:
Per our conversation with Dr. Carol Crawford and Dr. Machell Town on the 3rd of September, questions used on previous questionnaires are considered reliable.

Brief description of methods:

Results, including relevant statistics:

Citation (if applicable):

7. **Have the question(s) undergone cognitive testing?**

   ☐ Yes (skip next question and go to Date of testing Question)
   ☒ No

   If no, does program want PHSB to have testing conducted?
   ☒ Yes (go to Question 8)
   ☐ No (go to Question 8)

   If yes, please describe the study design and results:

Date of testing:

Study design:

Results:

Please submit any cognitive testing reports to Dr. Carol Pierannunzi (ivk7@cdc.gov) and copy George Khalil (uwm4@cdc.gov).

8. Have the questions already been administered in surveys or research studies?

☒ Yes
☐ No

If yes, please provide citation(s) and population to which it was administered:

Citation:

Proposed Q1 was on previous BRFSS surveys 2003-2008. Proposed Q2 was asked in the 2009 National Financial Capability Survey (1).

1. National Financial Capability Study 2009 Military Survey Questionnaire. (2010, October). Retrieved from http://www.usfinancialcapability.org/downloads/NFCS_2009_Mil_Qre.pdf

Population:

BRFSS surveys 2003-2008 were asked of over 450,000 adults aged 18 or older. The 2009 National Financial Capability Survey was administered to 700 military service members and 100 military spouses.

9. Please indicate approximate total time to administer the set of questions, including instructions.

☐ <30s
☒ 30s-1min
☐ 1-2 min
☐ >2 min
☐ Unknown

10. Please indicate the average time to administer per question.

☐ <10s
☒ 11-20s
☐ >20s
☐ Unknown

Please provide the methods used to obtain the timing data: Internal Estimates

11. Are the question(s) telephone/cell phone-survey ready?

☒ Yes
☐ No

Please describe how you determined the telephone/cell phone-survey readiness of the survey

SECTION F: PUBLIC HEALTH IMPORTANCE

12. Please provide a rationale for why the question(s) is/are important to health behavior or chronic disease by addressing the following:

The purpose of this application is to propose the inclusion of detailed demographic information on military service status and affiliation to enable health promoting organizations to identify service member's health needs, target interventions, and benchmark progress towards reducing behaviorally-mediated disease risk factors.

Prevalence or disease burden:

The major causes of disease and death among Americans have changed over the last century, shifting from predominantly communicable to chronic disease (1). Chronic diseases such as obesity, diabetes, heart disease, and stroke are the leading cause of mortality in the world, often caused by health damaging behaviors, and preventable through behavior change and health promotion interventions. The Army remains a highly trained and well-equipped force, and service in the military is a protective factor for certain health risks, including physical inactivity and obesity. However, in many cases, health damaging behaviors among military personnel mirror the behaviors of the broader population and some behaviors are more prevalent within military populations due to the added stress of the combat, illness, injury, and strain on interpersonal relationships associated with military life. For example, cigarette smoking, smokeless tobacco use, and binge drinking are higher among Service Members (24.5%; 12.8%; 33.1%) than the Civilian population (20.6%; 2.3%; 27.1%). These trends threaten not only Service Members' health and wellbeing, but also the financial viability of the Military Health System due to the cost of healthcare for military personnel, military retirees and their dependents (3) and the Military's readiness to achieve its mission to deter war and protect the security of the country. Furthermore, little is known about health and health behavior differences among active duty service members, military service veterans, National Guard/Reserves members, retirees, and their spouses.

The current surveillance for military health is based on clinical databases and is, therefore, skewed toward the presence of disease and conditions rather than on preventive health behaviors and risk factors of otherwise healthy populations.

1. Ready and Resilient Campaign. U.S. Army. http://www.army.mil/readyandresilient
2. Army Medicine Performance Triad Final Report. July 30, 2013. U.S. Army Public Health Command.
3. Timothy M. Dall, Yiduo Zhang, Yaozhu J. Chen, Rachel C. Askarinam Wagner, Paul F. Hogan, Nancy K. Fagan, Samuel T. Olaiya, and David N. Tornberg (*2007*). Cost Associated With Being Overweight and With Obesity, High Alcohol Consumption, and Tobacco Use Within the Military Health System's TRICARE Prime–Enrolled Population. American Journal of Health Promotion: November/December 2007, Vol. 22, No. 2, pp. 120-139.

Estimated costs to the public and healthcare:

Unhealthy lifestyles are significant contributors to the cost of providing healthcare services to the nation's military personnel, military retirees, and their dependents. The DoD spends an estimated $2.1 billion per year for medical care associated with tobacco use ($564 million), excess weight and obesity ($1.1 billion), and high alcohol consumption ($425 million). DoD incurs nonmedical

costs related to tobacco use, excess weight and obesity, and high alcohol consumption in excess of $965 million per year (1).

1. Timothy M. Dall, Yiduo Zhang, Yaozhu J. Chen, Rachel C. Askarinam Wagner, Paul F. Hogan, Nancy K. Fagan, Samuel T. Olaiya, and David N. Tornberg (*2007*). Cost Associated With Being Overweight and With Obesity, High Alcohol Consumption, and Tobacco Use Within the Military Health System's TRICARE Prime–Enrolled Population. American Journal of Health Promotion: November/December 2007, Vol. 22, No. 2, pp. 120-139.

How the topic is related to a state or national initiative (e.g. Healthy People 2020):

The President's Healthy People 2020 initiative focuses on a stronger, healthier America. To meet mission objectives and to be retained in today's professional Army, every member of the team needs to be healthy.

Multiple local, state, and federal organizations have a stake in promoting positive health behaviors in the military. The Army recently implemented a strategic campaign, the Ready and Resilient Campaign (R2C), that emphasizes building Soldiers' mental, physical, emotional, and behavioral ability to face and cope with adversity, adapt to change, recover, learn, and grow from setbacks. Lines of effort within the R2C include delivering education to Soldiers that will deter high risk behaviors and promote healthy alternatives to health damaging behaviors, emphasizing specific health behaviors such as physical activity, sleep, and nutrition, and using an evidence-based approach to assess the effectiveness of health promoting programs, systems, and interventions.

Healthcare in the United States is at a turning point, and the Military Health System is committed to being a leader in the national conversation as well as the movement towards a healthier nation and healthier living. The Army Surgeon General's top priority is transforming Army Medicine from a healthcare system to a System for Health. The System for Health is a shift in focus to a proactive, preventive system that promotes healthy behaviors and addresses health issues before they become health problems. As part of the transformation from a health care system to the System for Health, the U.S. Army Public Health Command (USAPHC) implemented multiple strategic initiatives that created a need for reliable data on which to base population-tailored health promotion strategies, including (but not limited to) Community Health Promotion Councils (CHPC) and the Army Public Health Accreditation Project. CHPCs are community coalitions that integrate and foster partnerships among health promoting organizations at Army installations and enlist military leadership support to facilitate health promotion interventions' success. As part of the CHPC Process, subject matter experts present data on an installation's health profile in order to drive decision making regarding how to improve the installations' health.

The Army Public Health Accreditation Project is an initiative that aims to build standards and measures and measures for Public Health Accreditation for Military public health departments and organizations. One of the core requirements for Public Health Accreditation are a Community Health Assessment that relies on comprehensive health data that describes the health of the population that public health departments serve. The USAPHC also conducts systematic reviews, epidemiologic investigations, and program evaluations targeted at improving Soldiers' health in the areas of injury prevention, chronic disease, and behavioral health. Data from the BRFSS could potentially inform this work to build the evidence-base for effective Army Public Health action. The Air Force, Navy, National Guard Bureau, Military Reserve Commands, and Veterans Administration also have similar Public Health oversight agencies that would benefit from the availability of specific data on population-specific behavioral risk factors.

Despite the need for scientifically rigorous data, the majority of the data sources available with military specific information provide incomplete or infrequent information on which to base health promotion strategy. For example, the only data available to monitor obesity in the Army is derived from clinical, medical diagnoses from medical records and surveillance systems. Analyzing data in this way yields an overestimate of obesity within the Army. There is a regular Department of

Defense Survey of Health Related Behaviors that includes comprehensive information on Active Duty Service members. However, these data are collected every 3-4 years, exclude key populations of importance to the military (e.g., Veterans, family members, and retirees), and do not collect sufficient information to compare Military data with key benchmarks (e.g., Health People 20/20) for most population-level health behavior indicators. The inclusions of detailed demographic information identifying military status and affiliation will fill a critical need for a more effective Military health promotion approach.

13. Besides your program, how will other states, programs or agencies benefit from the inclusion of these question(s) in the BRFSS?

Given the rise in the number of veteran families and retirees, as well as the increased national attention to this segment, several groups can benefit from including these questions on the BRFSS. The data generated through the BRFSS will provide valuable insight into the overall state of behavioral health of our Service Members as well as other related groups such as spouses and retirees. Findings from the survey will provide information on the fitness of the Reserves and National Guard personnel, federal and state-level assets respectively, including estimates of alcohol, drug, and tobacco use; nutrition and physical activity; and critical assessments of emotional stress and other issues. Data can be used to assess and document potential health and lifestyle issues pertaining to personnel, to track health-related trends, and to identify high-risk groups and areas needing additional screening or intervention. Individual states can use this data to better understand and address the needs of their service-related constituents. National and local government agencies, for-profit health product companies, and not-for-profit organizations can use this data to develop and deliver products and services of specific benefit target Military populations. Results will help leaders at all levels to identify health disparities and inform the Veteran's Affairs (VA) and other organizations regarding priorities for targeted interventions.

SECTION G: ANALYTIC PLAN

14. Please explain why state-level estimates are desired (e.g., impact for your program/agency, local/state/national policy implications, support to research funding.)

The majority of military health promoting organizations operate at the state, local, and installation levels, including CHPCs and Preventive Medicine and Public Health Departments. Also, state governors share responsibility for the administration of health promotion services with the federal government and can use state-level information to drive intervention. In addition, a significant amount of health services are provided through state organizations, particularly once a veteran and his/her family have left active duty and have integrated into a non-military community. The state of Washington, for example, has 20 local Veteran Service Organizations. Knowing the specific needs of the military-related populations at the local level will help match these citizens with programs and policies that are targeted to help them most. Local knowledge will also allow states to better allocate their limited resources to meet the specific health needs of their citizens rather than use national 'averages'.

15. Please explain why there is a need to measure the question(s) over time

This data will support current and future strategic public health initiatives such as suicide prevention and tobacco-free living. Data will guide needs-driven programs and will provide a more accurate picture of the health of our military population. In addition, this will provide information about Service Member's health compared to the general population, which is critical, particularly in view of media attention focused on veterans that have resulted in stigmas. The health stressors and health profile of the military-related population will change over time as the location and nature of conflicts and campaigns shift. It will be important to not only understand these changing dynamics of the population.

16. **Please describe how calculated variable(s) will be constructed from the question(s)**

    The proposed questions will not be used to calculate variables per se. Instead they will be used as more specific categories by which to analyze the data already being collected within the BRFSS.

17. **Please describe how the variable(s) will be used in analyses (e.g., outcome, predictor, etc.).**

    The more specific demographic categories that these questions propose will be used as predictor variables in determining health risk factors, disease and injury distribution profiles, and program target audiences.

18. **Based on your questions of interest and anticipated effect size, please provide an estimate for required sample size and the rationale/calculations used to determine the size.**

Estimated Sample Size:

There is no sample size required for this question to be effective. It is anticipated that approximately 15-20% of the respondents will fall into a military-related category.

Rationale/calculations:

The 2010 BRFSS all respondents (N = 451,075) were asked if they had “ever served on active duty in the US Armed Forces, either in the regular military or in a National Guard or military reserve unit,” and based on responses, were stratified into five groups: active duty (“now on active duty” or “on active duty during the last 12 months but not now”; n=2,805); veteran (“on active duty in the past but not during the last 12 months”; n=57,627); National Guard/Reserve (“lifetime training for Reserves or National Guard only”; n=4,719); civilian (“never served in the military”; n=384,515); and missing data (n=1,409).

Based on the 2012 BRFSS, 61,505 respondents were affiliated with the US Armed Forces (active duty, veteran, or National Guard/Reserve). This equates to 12.5% of the respondents (61,505/497,773). If half the military are married, following national averages, another 6% of the population could be eligible to answer the ‘spouse’ response.

SECTION H: MODIFICATIONS

19. Current wording of proposed question(s) (please attach additional Word document if space below is not sufficient):

Q1: Combines the 2003 -2008 core question wording with two unmodified historical choice categories, three modified historical choice categories, and two additional choice categories.

Which of the following best describes your service in the Unites States Armed Forces?

1	Currently on active duty	*unmodified*
2	Currently in a National Guard unit	*modified, broken into two separate categories*
3	Currently in a Reserve unit	*modified, broken into two separate categories*
4	Retired from military service	*unmodified*
5	Veteran, not retired from military service	*new*
6	Spouse of current or former service member	*new*
7	Self and Spouse never served in the military	*modified, clarifying 'self' and adding spouse*

Q2: For those who answer 1-6 on Q1. Those who have never served, who are not a spouse of a service member, or who don't know, aren't sure or refuse will skip this question. Source of this question is the National Financial Capability Study, 2009 Military Survey Questionnaire Q AM7,

What is your (if Q1 = 1, 2, or 3 insert 'current') (if Q1 = 4 or 5, insert 'most recent') (if Q1 = 6, insert 'spouse's current or most recent) US Armed Force component?

1 Army
2 Navy
3 Air Force
4 Marine Corps
5 Coast Guard

Do not read:

7 Don't know / Not sure
9 Refused

20. Explanation and rationale for proposed wording change.

We propose to separate National Guard from Reserve units since they are subordinated to two different levels of government. The state has oversight of the National Guard whereas the federal government oversees the Reserves. While often their goals are programs are similar, there may be some cases where it would be beneficial to separate these two groups. In analyses, these groups can be combined if necessary, but if combined on the survey, they cannot be later separated.

We propose to add two additional groups of interest to the traditional 'armed services' question. The past decade of war has dramatically increased the number of men and women who have served in the military, but who are not currently serving and who have not retired from service after a full career. It is important to identify this segment of the population as they may have a different health risk profile from both the full-time service members and the 'never served' general population. They may also have a different health benefit structure and be eligible for VA services etc. Similarly, we propose to separate military spouses from the general population of those who have never served. This will enable identification of health risks among those who live under a different stress profile than the general public, who have a unique health care benefit system, and whose health behaviors can influence the health and wellness of military service members.

We proposed to clarify a respondent's component by adding 'current' and/or 'most recent' since individuals can serve in more than one component during their service.